

in claims 1, 5 and 9. The Office Action alleges that Psaltis remedies this deficiency.

Applicants respectfully disagree.

The Office Action alleges that Psaltis, in Fig. 7, discloses setting the track width at least as wide, or just slightly larger than the spread of the Fourier transform image. The Office Action appears to rely solely on the drawing of Fig. 7, which is drawn to show holograms 100, 102 and 104 within the borders of the track N.

Such reliance, however, is misplaced. MPEP §2141.02 states that a reference must be considered in its entirety, including portions that would lead away from the claimed invention. In the text accompanying Fig. 7, at col. 7, lines 15-16, Psaltis discloses radially moving the beam spot by “the width of one track (i.e., by the width of one beam spot)” (emphasis added).

Thus, by stating that the track width is equal to the width of one beam spot, Psaltis specifically teaches away from setting the track width to be “at least larger” than a spread of Fourier transform image and completely contradicts the Office Action’s interpretation of the drawings.

Applicants submit that the drawings are only representative of exemplary embodiments and cannot be relied upon to contradict the written disclosure, especially when no textual support is cited. For example, when an offset δ value for multiplexed holograms 100, 102 and 104 is necessary, Psaltis specifically discloses distance δ in the text.

Similarly, Applicants submit that holograms 100, 102 and 104 are depicted respectively smaller only for the purpose of clarity of illustration, and not to disclose a reduced size. Drawing the holograms equal in width to “TRACK N” would obfuscate the holograms and the tracks and would lead to confusion.

As Kawano is silent regarding setting track width, and because Psaltis does not set the track width “at least larger than”, a spread of the Fourier transform, specifically stating that

the track width is equal to the width of one beam spot, both references of the applied combination fail to disclose all the features of claims 1, 5 and 9. Accordingly, as neither Kawano nor Psaltis discloses, teaches or suggests all the features of claims 1, 5 and 9, the rejection under 35 U.S.C. §103(a) is improper.

Accordingly, Applicants respectfully submit that independent claims 1, 5 and 9 are patentable over Kawano and Psaltis. Claims 6-10, 14 and 17 depend variously from claims 1, 5 and 9 and are likewise patentable over Kawano and Psaltis based at least upon their dependency, as well as for additional features they recite. Accordingly, withdrawal of this rejection is respectfully requested.

The Office Action further rejects claims 2, 3, 11 and 12 under 35 U.S.C. §103(a) over Kawano in view of Psaltis. This rejection is respectfully traversed.

The Office Action admits that Kawano in view of Psaltis fails to disclose a width of the recording track satisfying a relationship for recording track width w expressed by:

$$\frac{\lambda F}{d} \leq w \leq \frac{n\lambda F}{d} \text{ (p. 21, eqn. (5), as described in Applicants' specification), or more}$$

specifically $w \approx m \frac{\lambda F}{d}$, where λ is the signal light wavelength, F is the focal distance of the

lens system, d is the one-bit data length, and n and m are integers. The Office Action

nonetheless asserts that Kawano teaches that the spread ζ (p. 13, eqn. (4), but identified in the Office Action as ξ) of the Fourier transform image corresponding to the maximum spatial

frequency of the signal light should ideally be approximately $0 \leq \zeta \leq \frac{n\lambda F}{d}$.

Based upon the indication that the Office Action does not consider the disclosure of Psaltis in its entirety, as discussed above, the Office Action erroneously alleges that because the track width w is ideally at least the same size or just slightly larger than the spread ζ of the

Fourier transform image, it would have been apparent to similarly have the width w of the track be $0 \leq w \leq \frac{n\lambda F}{d}$.

The Office Action further asserts that it would have been obvious to one having ordinary skill in the art to have the width of the recording track as recited in claims 2, 3, 11 and 12 for the purpose of reducing cross-talk from adjacent holograms recorded in adjacent tracks. Applicants respectfully disagree.

As discussed above, Applicants respectfully submit that the Office Action erroneously asserts that Psaltis discloses the track width is ideally at least the same size or just slightly larger than the spread of the Fourier transform image, by failing to interpret Psaltis as a whole (MPEP §2141.02). Applicants reiterate that Psaltis specifically states that the track width equals the beam width, in other words, the spread of the Fourier transform. Accordingly, the rejection of claims 2-3 and 11-12 over Kawano and Psaltis is improper. Withdrawal of the rejection is respectfully requested.

The Office Action rejects claims 4 and 13 under 35 U.S.C. §103(a) over Kawano in view of Psaltis, and further in view of U.S. Patent No. 6,163,391 to Curtis et al. ("Curtis"). This rejection is respectfully traversed.

As discussed above, neither Kawano nor Psaltis discloses, teaches or suggests setting the track width "at least larger than" a spread of the Fourier transform. Applicants respectfully submit that Curtis, likewise, fails to disclose this feature.

It is respectfully submitted that based at least upon the patentability of independent claims 1 and 9, dependent claims 4 and 13 are patentable over the asserted combination of Kawano, Psaltis and Curtis. Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) over Kawano, Psaltis and Curtis is respectfully requested.

Applicants gratefully acknowledge the opportunity for a personal interview with the Examiner tentatively scheduled for July 21, 2005.

In view of the foregoing, Applicants respectfully submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-18 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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